IN THE SPECIFICATION

Please delete the "Brief Description of Drawings" at page 35, line 7 to page 36, line 1 and please add the "Brief Description of Drawings" immediately following the paragraph beginning at page 23, line 3 as follows:

Brief Description of Drawings

FIG. 1 is a conceptual diagram showing a path of an ultrasonic wave;

FIG. 2 is a schematic diagram showing a state in which an ultrasonic transmitting and receiving unit relating to a second embodiment is fixed to a pipe;

FIGs. 3(a), 3(b) and 3(c) are views explaining a process to calculate a reference flow velocity distribution using an ultrasonic transmitting and receiving means;

FIG. 4 is a view showing a schematic configuration of a Doppler ultrasonic flowmeter;

FIG. 5 is a conceptual diagram showing a wedge manufacture on-the-spot of fixation;

FIG. 6 is a conceptual diagram showing a case in which contact of a curved surface of a pipe and a wedge is not sufficient;

FIG. 7 is a conceptual diagram showing a relation between an ultrasonic transducer and the length of a wedge;

FIG. 8 is another conceptual diagram showing a relation between an ultrasonic transducer and the length of a wedge; and

FIG. 9 is a view showing a disadvantage of a conventional Doppler ultrasonic flowmeter.

Please amend the paragraph at page 8, line 15 to page 9, line 3, as follows:

~~(Claim 1)~~

An example of the invention ~~described in claim 1~~ relates to an ultrasonic flowmeter for measuring a flow rate of a fluid to be measured including: an ultrasonic transmitter for launching ultrasonic pulses of a predetermined frequency into the fluid to be measured (11) in fluid pipe (10) from an ultrasonic transducer along a measurement line; a flow velocity distribution measurement means for measuring flow velocity distribution of the fluid to be measured in a measurement region by receiving ultrasonic echoes reflected from the measurement region among the ultrasonic pulses incident into the fluid to be measured (11); and a flow rate operation means for operating a flow rate of the fluid to be measured in the measurement region based on the flow velocity distribution of the fluid to be measured. In the ultrasonic flowmeter, an ultrasonic transmitter and a receiver for receiving ultrasonic echoes are made to be an ultrasonic transducer (20) integrating a transmitting function and a receiving function of the ultrasonic wave.

Please amend the paragraph at page 13, lines 23-26, as follows:

~~(Claim 2)~~

The invention described ~~in claim 2~~ for another example defines the ultrasonic flowmeter ~~according to claim 1. That is,~~ where a contact surface with the fluid pipe of the wedge is made equal to the curvature of the fluid pipe.

Please delete the paragraph at page 14, lines 11-13, as follows:

~~(Claim 3)~~

~~The invention described in claim 3 defines the ultrasonic flowmeter according to any one of claims 1 or 2.~~

Please amend the paragraph at page 14, lines 14-18 as follows:

~~That is~~In another example, the distance from the ultrasonic transmitter to the outer surface of the fluid pipe of the wedge is made longer than the distance obtained from multiplying the velocity of the ultrasonic wave penetrating through the wedge by the time of the dead zone which the ultrasonic oscillator carries.

Please amend the paragraph at page 14, line 24 to page 15, line 2 as follows:

When the distance from the ultrasonic transmitter (20) to the outer surface of the fluid pipe (10) in the wedge (30) is taken as Lx, and the velocity with which ultrasonic wave penetrate through the wedge (30) is taken as Vk, and the time of dead zone which an oscillator of the ultrasonic is taken as Tt, ~~Lx>Vk>Tt~~ Lx >Vk x Tt.

Please delete the paragraph at page 15, lines 16-18, as follows:

~~(Claim 4)~~

~~The invention described in claim 4 defines the ultrasonic flowmeter described any one of claims 1 to 3.~~

Please amend the paragraph at page 15, lines 19-21 as follows:

~~That is~~ In another example, the material of the wedge from the ultrasonic transmitter and receiver to the outer surface of the fluid pipe is made equal to that of the acoustic impedance of the fluid pipe.

Please amend the paragraph at page 16, line 26 to page 17, line 12 as follows:

~~(Claim 5)~~

~~The invention described in claim 5~~ An another example of the invention relates to a wedge used to an ultrasonic flow meter for measuring a flow rate of a fluid to be measured including: an ultrasonic transmitter for launching ultrasonic pulses of a predetermined frequency into the fluid to be measured in fluid pipe from an ultrasonic transducer along a measurement line; a flow velocity distribution measurement means for measuring flow velocity distribution of the fluid to be measured in a measurement region by receiving ultrasonic echoes reflected from the measurement region among the ultrasonic pulses incident into the fluid to be measured; and a flow rate operation means for operating a flow rate of the fluid to be measured in the measurement region based on the flow velocity distribution of the fluid to be measured, in which the ultrasonic transmitter and the ultrasonic echo receiver are formed in one piece.

Please delete the paragraph at page 17, line 25 to page 18, line 1 as follows:

~~(Claim 6)~~

~~The invention described in claim 6 defines the wedge described in claim 5.~~

Please amend the paragraph at page 18, lines 2-3 as follows:

~~That is~~ In an example, the contact surface with the fluid pipe is made equal to the curvature of the fluid pipe.

Please delete the paragraph at page 18, lines 5-7 as follows:

~~(Claim 7)~~

~~The invention described in claim 7 defines the wedge described in any one of claims 5 and 6.~~

Please amend the paragraph at page 18, lines 8-16 as follows:

In another example, ~~The~~ the wedge (30) includes a fixation unit (31) for fixing the ultrasonic transmitter (20) to the fluid pipe (10) relating to the fluid to be measured (11), and an ultrasonic transmitting unit (32) from the ultrasonic transmitter (20) fixed to the fixation unit (31) to the outer surface of the fluid pipe (10), and the distance from the ultrasonic transmitter (20) in the ultrasonic transmitting unit (32) to the outer surface of the fluid pipe (10) is made longer than the distance calculated by multiplying the velocity with which ultrasonic wave penetrates through the wedge (30) and the time of the dead zone which the oscillator of ultrasonic wave carries.

Please delete the paragraph at page 19, lines 6-8 as follows:

~~(Claim 8)~~

~~The invention described in claim 8 defines the wedge described in claim 7.~~

Please amend the paragraph at page 19, lines 9-10 as follows:

~~That is~~ In another example, material of the ultrasonic wave transmitting unit in the wedge is made equal to that of the acoustic impedance of the fluid pipe.

Please delete the Abstract at page 41, lines 1-21 and replace it with the new Abstract shown on the following page.